

**Notice of Allowability**

Application No.

10/727,829

Applicant(s)

NAKAYA, SHUJI

Examiner

Art Unit

Toan Le

2824

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on 7/11/2005.
2. ☒ The allowed claim(s) is/are 1-3.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 2/23/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other East search history.

**ANH PHUNG**  
**PRIMARY EXAMINER**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Non-elected claims 4 and 5 are canceled.

The examiner's amendment has been made in order to place the application in a condition for allowance.

### **DETAILED ACTION**

2. This office action is in response to applicant's amendment filed on July 11, 2005.
3. Claims 1-3 are presented for examination.

### ***Allowable Subject Matter***

4. Claims 1-3 are allowable over the art of record.
5. The following is an examiner's statement of reasons for allowance: There is no suggestion or teaching in the art to provide a charging circuit including a first charging sub-circuit that is operated when an output signal of the charge signal generation circuit is in an active state, and a second charging sub-circuit that is operated when the output signal of the charge signal generation circuit is in an active state and a voltage of the selected bit line is lower than a predetermined voltage, in combination with the remaining claimed limitation as recited in

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the claim 1, nor is there suggestion or teaching to provide a charging circuit including a first transistor having a source terminal supplied with a supply voltage, a gate terminal supplied with an output signal of the charge signal generation circuit, and a drain terminal connected to an input terminal of the determination circuit; a second transistor having a source terminal supplied with the supply voltage and a gate terminal supplied with the output signal of the charge signal generation circuit; and a third transistor having a source terminal connected to a drain terminal of the second transistor, a gate terminal connected to the output terminal of the determination circuit, and a drain terminal connected to the input terminal of the determination circuit, in combination with the remaining claimed limitation as recited in the claim 2, nor is there suggestion or teaching to provide a charging circuit including a first transistor having a source terminal supplied with a supply voltage; a gate terminal supplied with an output signal of the charge signal generation circuit, and a drain terminal connected to an input terminal of the determination circuit; a second transistor having a source terminal supplied with the supply voltage and a gate terminal supplied with the output signal of the charge signal generation circuit; a third transistor having a source terminal connected to a drain terminal of the second transistor and a drain terminal connected to the input terminal of the determination circuit; and an inverter having an input terminal connected to the input terminal of the determination circuit and an output terminal connected to a gate terminal of the third transistor in combination with the remaining claimed limitation as recited in the claim 3.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

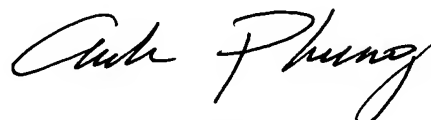
Bae et al. (US 6,487,132), Hori et al. (US 6,130,846) disclose a memory device having pre charge circuit.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Le whose telephone number is (571) 272-1872. The examiner can normally be reached on M-F (8.00AM - 5.30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL  
September 19, 2005



**ANH PHUNG  
PRIMARY EXAMINER**